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⑪ Publication number:

0 557 252 A1

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## EUROPEAN PATENT APPLICATION

⑬ Application number: 93830041.5

⑮ Int. Cl.5: A47G 19/03, B65D 85/62

⑭ Date of filing: 04.02.93

⑯ Priority: 07.02.92 IT AN920002

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⑰ Date of publication of application:  
25.08.93 Bulletin 93/34

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⑲ Designated Contracting States:  
AT BE CH DE DK ES FR GB GR IE IT LI LU MC  
NL PT SE

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⑳ System for piling paper or plastic plates having a holding flap.

⑳ This design patent concerns a system for piling paper plates (1) whereby the flap (2) of each plate (1) in one pile is staggered with respect to the flap (2) of the underlying plate (1).

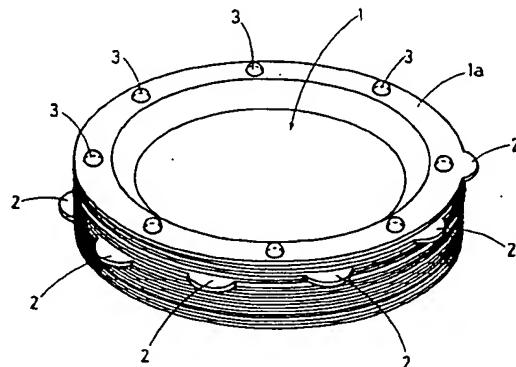


FIG.1

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This design patent concerns a system for piling paper plates whereby the flap of each plate in one pile is staggered with respect to the flap of the underlying plate. Disposable paper plates are made of plasticized paper or of plastic and are packaged in compact piles in plastic bags or shrink-films.

The use of these plates has raised a practical problem: when a plate is removed from its packaging pile, very often two or three plates come away together instead of only one. This is caused not only by the very fine thickness of the plates but also because they are piled very closely together in order to prevent the formation of air pockets which would destabilize the pile and increase its height.

Attempts have already made to resolve this problem with a semicircular flap on the edge of the plate which can be held to separate the plate from the pile individually - this was done in the belief that it would be easier to hold the plate from this flap in order to remove the plate from the pile rather than holding it from the edge of the plate. From a practical point of view however these flaps have in no way resolved the initial problem in that even if the flaps do provide a better holding area thanks to their projecting profile, they are equally as difficult to separate since they too are extremely fine as well as being overlapping and compacted on each other, just like the plates.

In view of these problems, a system has been designed for packaging disposable plates for which the issue of a design patent is requested; according to this invention, the plates in the pile fit into each other with the flap of each plate staggered and not overlapping the flap of the underlying plate.

This means that the pile of plates packaged according to this system has the flaps distributed in a helicoidal arrangement; in this position none of the flaps overlap or adhere to the others, but are, at the most aligned - in the case of piles with numerous plates - with other flaps but always with a minimum distance between them corresponding to the above helicoidal curve.

It is clear that the packaging system according to the invention is the final solution to this problem since in a pile packaged in this way the flaps of the plates are extremely easy to grasp.

The new packaging system is easy and convenient to realize for all standard plates, but is more reliable if used with plates having several regularly spaced cup shaped impressions on the circular crown, which fit into those on the underlying plate of the pile.

This male - female coupling of the plates in the pile stops the flaps of two or more piled plates from overlapping, should these be accidentally turned, thereby nullifying the advantages offered by

the packaging system in question.

The impressions on each plate can obviously be realized with many different shapes provided the same can fit perfectly into those on the overlapping and underlying plates in the pile.

For major clarity the description of the invention continues with reference to the enclosing drawing which is intended for purposes of illustration and not in a limiting sense, whereby:

10 - fig. 1 is a schematic and perspective view of a pile packaged using the system in question.

15 - fig. 2 is a schematic and perspective view of a similar pile of plates to that shown in fig. 1 with the difference that each plate has radial non-slip slots instead of cup shaped impressions.

Fig. 1 illustrates a pile consisting of several plates (1) whose respective flaps (2) are staggered 20 at a regular angle along the external edge of the pile.

25 As already mentioned, each plate (1) has a series of regularly spaced cup shaped impressions (3) on the circular crown (1a) which fit together perfectly with identical impressions on the plates above and below.

30 Using the same packaging system, the pile of plates in fig. 2 consists of plates (1) having a series of radial non slip slots (4), whose scope is the same as that of the cup shaped impression 3 on the plates shown in fig. 1.

### Claims

35 1. A packaging system for piling plastic or paper plates having a holding flap characterized in that the plates (1) of the same pile are overlapped so that the flap (2) on each plate is staggered with respect to the flap of the underlying plate.

40 2. A packaging system for piling paper plates according to claim 1), characterized in that the plates of the same pile are packaged so that their flaps (2) are positioned along a helicoidal line.

45 3. Plate packages (1) having flaps (2) piled according to the packaging system according to claims 1) and 3).

50 4. A plate for use in the realization of the packing system according to claims 1) and 2) characterized by a series of regularly spaced cup shaped impressions (3) on the circular crown (1a) which fit together perfectly with identical cup shaped impressions on the overlapping and underlying plates in the same pile.

5. A plate for use in the realization of the packaging system according to claims 1) and 2) characterized by a series of radial non-slip slots (4) on the circular crown.

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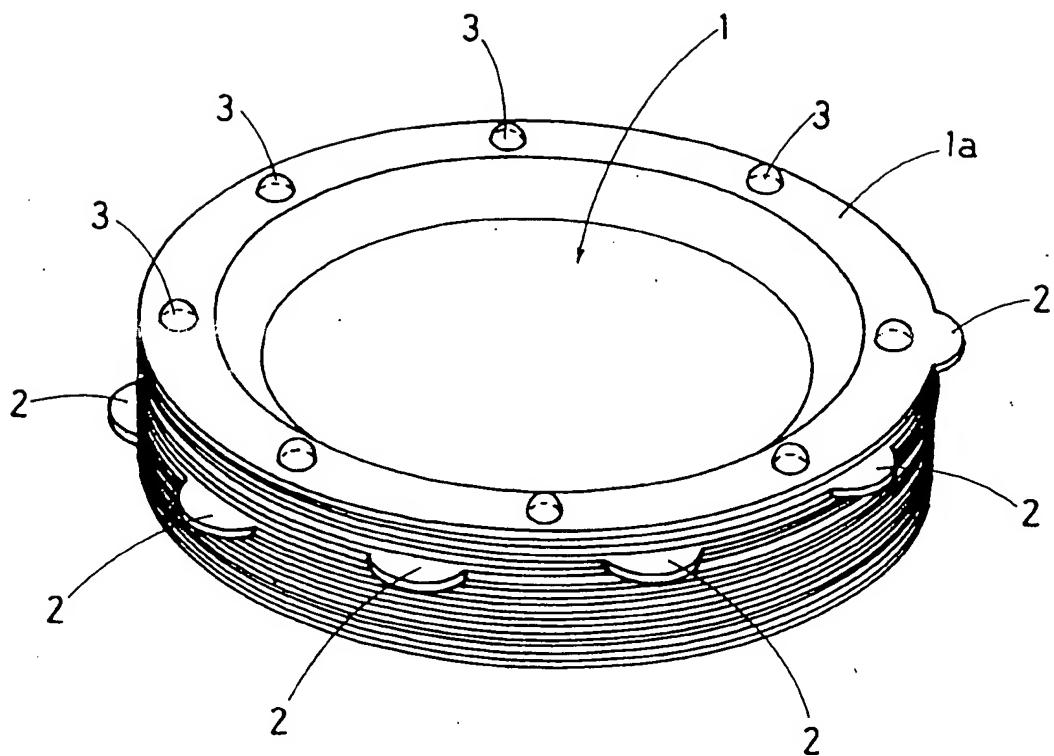


FIG. 1

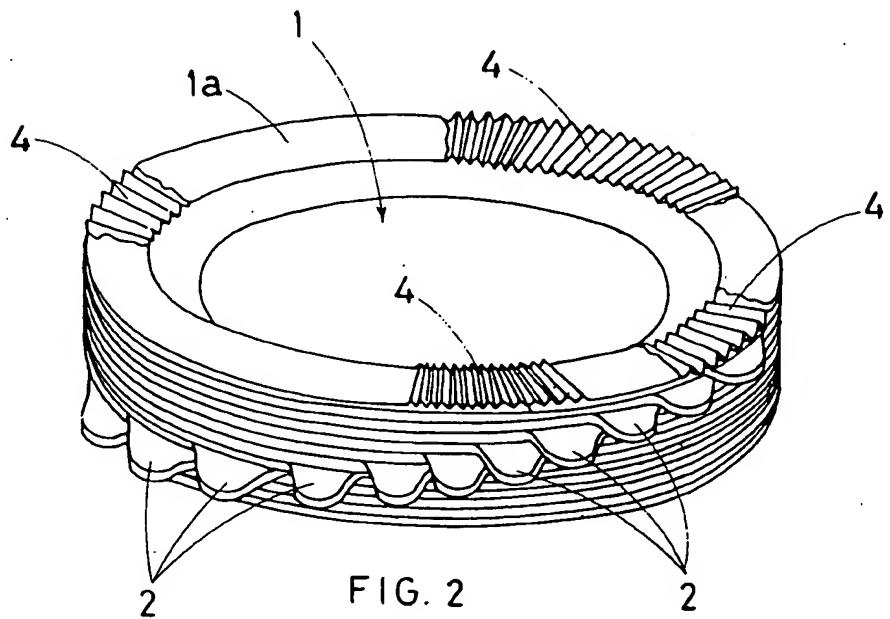


FIG. 2



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## EUROPEAN SEARCH REPORT

**Application Number**

EP 93 83 0041

DOCUMENTS CONSIDERED TO BE RELEVANT					
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cls.)		
X	EP-A-0 106 294 (HIMMELSBACH PRODUKTIONS AG) * page 4, paragraph 2 - page 7, paragraph 2; figures *	1-5	A47G19/03 B65D85/62		
X	FR-A-1 528 900 (VACHERON) * page 1, right column, line 24 - line 27 *	1			
A	US-A-1 574 259 (SARFF) * page 1, line 68 - line 82; figures *	1			
A	WO-A-8 900 142 (CARRILLO) * page 10, line 7 - line 34; figures 8-10 *	1			
A	DE-U-8 905 290 (PATANIA) * page 2, last paragraph - page 4, paragraph 5; figure 3 *	1			
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TECHNICAL FIELDS SEARCHED (Int. Cls.)					
A47G B65D A47J					
The present search report has been drawn up for all claims					
Place of search	Date of completion of the search	Examiner			
THE HAGUE	19 MAY 1993	ECCETTO M.			
CATEGORY OF CITED DOCUMENTS					
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